Amendments

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application. Please add new claims 69-101. Currently amended claims are shown with additions underlined and deletions in ~~strikethrough~~ text. No new matter is added by this amendment.

Listing of Claims:

Claims 1-52 (Cancelled).

Claim ~~53~~ 1 (Currently Amended) A method, comprising:

receiving a haptic-feedback signal at a haptic-feedback device, the haptic-feedback device being configured to provide input data to an associated graphical environment; and

filtering sensor data only when the haptic-feedback signal causes the outputting of haptic feedback, the filtering based on the haptic-feedback signal to produce the input data operative to reduce visual disturbance in the associated graphical environment~~, the selectively filtering the sensor data including filtering the sensor data only when the haptic-feedback signal causes the outputting of the haptic feedback~~.

Claim 54 (Cancelled).

Claim ~~55~~ 12 (Currently Amended) A method, comprising:

receiving a haptic-feedback signal at a haptic-feedback device~~, the haptic-feedback device being configured to provide input data to an associated graphical environment~~; and

filtering sensor data by time-averaging the sensor data to create filtered input data, the filtering also based on the haptic-feedback signal to produce the filtered input data operative to reduce visual disturbance in the associated graphical environment~~, the selectively filtering including modifying the sensor data by time-averaging the sensor data to create filtered input~~

~~data~~, the haptic-feedback device being configured to provide the filtered input data to an associated graphical environment.

Claim ~~56~~ 20 (Currently Amended) A method, comprising:

receiving a haptic-feedback signal at a haptic-feedback device, the haptic-feedback device being configured to provide input data to an associated graphical environment; and

filtering sensor data to produce a held data value, the filtering including sampling and holding a data value derived from the sensor data based on a movement of the haptic-feedback device without output of haptic feedback, the input data including the held data value, the filtering also based on the haptic-feedback signal to produce the input data being operative to reduce visual disturbance in the associated graphical environment~~, the selectively filtering including modifying the sensor data to produce a held data value by sampling and holding a data value derived from the sensor data based on a movement of the haptic-feedback device without output of haptic feedback, the input data including the held data value~~.

Claims 57-60 (Cancelled).

Claim ~~61~~ 28 (Currently Amended) A method, comprising:

receiving a haptic-feedback signal at a haptic-feedback device;

outputting haptic-feedback based on the haptic-feedback signal;

filtering sensor data to produce input data according to a disturbance filter process including time-averaging the sensor data, the disturbance filter process being associated with the haptic feedback, the sensor data being based on a movement of the haptic-feedback device during the outputting of the haptic feedback, the filtering of the ~~input~~ sensor data operative to reduce disturbance in an associated graphical environment caused by the output of the haptic feedback~~, the disturbance filter process including modifying the sensor data by time-averaging the sensor data~~; and

updating the associated graphical environment based on the input data.

Claims 62-65 (Cancelled).

Claim ~~66~~ 30 (Currently Amended) An apparatus comprising:

an actuator configured to receive a haptic-feedback signal, the actuator configured to produce haptic feedback based on the haptic feedback signal;

a sensor coupled to the actuator, the sensor configured to detect a movement of the sensor~~, the sensor being configured to receive a command from a host computer in communication with the sensor to activate the filter~~; and

a filter configured to receive sensor data from the sensor and to provide input data to an associated graphical environment based on the haptic-feedback signal, ~~the sensor being~~ the filter configured to receive a command from a processor in communication with ~~the sensor to at least one of activate and deactivate the filter~~ the filter.

Claims 67-68 (Cancelled).

Claim ~~69~~ 2 (New) The method of claim ~~53~~ 1, further comprising determining a position of a graphical object in the associated graphical environment based on the input data.

Claim ~~70~~ 3 (New) The method of claim ~~53~~ 1, further comprising sending the input data to a processor.

Claim ~~71~~ 4 (New) The method of claim ~~53~~ 1, further comprising outputting the haptic feedback based on the haptic-feedback signal, the outputting haptic feedback and the filtering the sensor data being performed by a processor local to the haptic-feedback device.

Claim ~~72~~ 5 (New) The method of claim ~~53~~ 1, further comprising outputting the haptic feedback based on the haptic-feedback signal, the outputting the haptic feedback and the filtering the sensor data being performed by a processor configured to control the associated graphical environment, the processor configured to be in communication with the haptic-feedback device.

Claim 6 (New) The method of claim 1, wherein the outputting the haptic feedback is configured to be correlated with data values associated with an event in the associated graphical environment.

Claim 7 (New) The method of claim 1, wherein the filtering includes sampling the sensor data over time according to a sampling rate.

Claim 8 (New) The method of claim 1, wherein the filtering includes time-averaging the sensor data to produce filtered input data.

Claim 9 (New) The method of claim 1, wherein the filtering includes sampling and holding a data value derived from the sensor data based on a movement of the haptic-feedback device to produce a held data value, the input data includes the held data value.

Claim 10 (New) The method of claim 1, wherein the filtering includes executing a driver on a processor configured to be in communication with the haptic-feedback device.

Claim 11 (New) The method of claim 1, further comprising updating a position of a graphical object in the associated graphical environment based on the input data.

Claim 13 (New) The method of claim 12, further comprising determining a position of a graphical object in the associated graphical environment based on the input data.

Claim 14 (New) The method of claim 12, further comprising sending the input data to a processor.

Claim 15 (New) The method of claim 12, further comprising outputting the haptic feedback based on the haptic-feedback signal, the outputting haptic feedback and the filtering the sensor data being performed by a processor local to the haptic-feedback device.

Claim 82 (New) The method of claim 55, further comprising outputting the haptic feedback based on the haptic-feedback signal, the outputting the haptic feedback and the filtering the sensor data being performed by a processor configured to control the associated graphical environment, the processor configured to be in communication with the haptic-feedback device.

Claim 83 (New) The method of claim 55, wherein the outputting the haptic feedback is configured to be correlated with data values associated with an event in the associated graphical environment.

Claim 84 (New) The method of claim 55, wherein the filtering includes executing a driver on a processor configured to be in communication with the haptic-feedback device.

Claim 85 (New) The method of claim 55, further comprising updating a position of a graphical object in the associated graphical environment based on the input data.

Claim 86 (New) The method of claim 56, further comprising determining a position of a graphical object in the associated graphical environment based on the input data.

Claim 87 (New) The method of claim 56, further comprising sending the input data to a processor.

Claim 88 (New) The method of claim 56, further comprising outputting the haptic feedback based on the haptic-feedback signal, the outputting haptic feedback and the filtering the sensor data being performed by a processor local to the haptic-feedback device.

Claim 89 (New) The method of claim 56, further comprising outputting the haptic feedback based on the haptic-feedback signal, the outputting the haptic feedback and the filtering the sensor data being performed by a processor configured to control the associated graphical environment, the processor configured to be in communication with the haptic-feedback device.

Claim 25 (New) The method of claim 20, wherein the outputting the haptic feedback is configured to be correlated with data values associated with an event in the associated graphical environment.

Claim 26 (New) The method of claim 20, wherein the filtering includes executing a driver on a processor configured to be in communication with the haptic-feedback device.

Claim 27 (New) The method of claim 20, further comprising updating a position of a graphical object in the associated graphical environment based on the input data.

Claim 29 (New) The method of claim 28, further comprising determining a position of a graphical object in the associated graphical environment based on the input data.

Claim 30 (New) The method of claim 28, further comprising sending the input data to a processor.

Claim 31 (New) The method of claim 29, further comprising outputting the haptic feedback based on the haptic-feedback signal, the outputting haptic feedback and the filtering the sensor data being performed by a processor local to the haptic-feedback device.

Claim 32 (New) The method of claim 28, further comprising outputting the haptic feedback based on the haptic-feedback signal, the outputting the haptic feedback and the filtering the sensor data being performed by a processor configured to control the associated graphical environment, the processor configured to be in communication with the haptic-feedback device.

Claim 33 (New) The method of claim 28, wherein the outputting the haptic feedback is configured to be correlated with data values associated with an event in the associated graphical environment.

Claim 34 (New) The method of claim 28, wherein the filtering includes executing a driver on a computer configured to be in communication with the haptic-feedback device.

Claim 35 (New) The method of claim 28, further comprising updating a position of a graphical object in the associated graphical environment based on the input data.

Claim 37 (New) The apparatus of claim 34, further comprising a processor local to the haptic-feedback device, the processor configured to output the haptic feedback based on the haptic-feedback signal.

Claim 38 (New) The apparatus of claim 34, further comprising a processor in communication with the haptic feedback device, the processor configured to control the associated graphical environment and output the haptic feedback based on the haptic-feedback signal.